July 2016 Feature: Data Storage and Archiving
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Introduction
The William S. Richardson School of Law Library has embarked on a journey to develop their archival collections. This article outlines the steps to assess the archival and recordkeeping context of an institution in order to plan the installation and development of repositories and technology to support the access and curation to digital collections and electronic records.

According to “Cintas Document Management Paper: Best Practices for Transitioning to an Electronic Medical Record System,” four principles were discussed:

1. Take inventory of records.
2. Create retention schedules and policies for each department.
3. Select the best document management system that can connect legacy to proprietary system, such as the ability to save different files, destroy records or send copies.
4. Begin scanning even before the software is purchased so that when it is set up, the files can be migrated and searched.¹

Although this process refers to a medical environment, it outlines steps applicable for our any library’s needs. An inventory of records helps to understand the quantity and content of the records that will be migrated during this transition. Retention schedules and policies for each department can clarify how long the record should be kept, and how it circulates within the organization’s workflow. These first two steps help determine the activities that drive the record creating and recordkeeping processes, valuable information in determining the organization’s priorities when planning a software purchase.

It is important to note that there are different subtypes in Information Management:

- Digital Asset Management - refers to cataloging digital items such as photos or videos.
- Content Management - refers to the creation and publication of web content
- Knowledge Management - capturing of an enterprise’s records and human resource experience to support its development and innovation
- Records Management - pertains to the systematic administration of active business records within their life cycle.
- Document Management - refers to the storing and management of documents that are being actively modified and used by multiple users.²
Our project falls into Digital Asset Management and Document Management needs. Cintas Document Management Best Practices are similar to our strategy: 1) Taking Stock: Identifying our Assets, 2) Assessing Existing Infrastructure, 3) Envisioning Our Goals, and 4) Testing Software. We have scanned some archival records for our digital archives, and have born-digital business records, but this process is not covered in the scope of this essay. Let us explore the details of our four steps:

**Taking Stock: Identifying our Assets:**

In “The Business Case for DAM,” Theresa Regli writes that the first step in planning the implementation of a Digital Asset Management system is to understand what we have and how do we want to use them? Some guiding questions are: “What digital media do we own? Where are they located and how can we find them? Do we know what format they are in? Do we have the right to use or share them? If we do have the right, how can we deliver them? Will the DAM help us publish in multiple forms in different channels (such as web or print)?” These questions help to reflect on the scope of our electronic recordkeeping needs. When we know what we have and how they are being used within the organization, we can then begin to write down procedures of their use and function within policies and records retention schedules. In our case, we identified two general categories of records:

A. **Business Records:** We keep procedure manuals for various departments, departmental operational files, and staff files on a shared server called “Manu.” It is currently accessible by all faculty and staff for various departmental and administrative functions.
   a. The Public Services staff create and keep documents that refer to procedures, shelf management, statistics, archives, course reserves, room reserves, and other functions that relate to the library’s relationship to the students and patrons.
   b. The Tech Services Department keeps documents regarding cataloging and acquisition policies.
   c. Librarians also keep documents regarding reference services, events, research databases.
   d. The Library Director keeps documents regarding administration, hiring and personnel documents.
   e. Electronic Services and Acquisition keeps documents regarding statistics and vendor/contract information

B. **Research Collections:** The second category of records in our collection include research collections. We have a library website that hosts policy information about our library, provides access to catalogs, research databases and law journal subscriptions, Research Guides (aka LibGuides), and our future digital archive. It serves as a public
relations tool to inform prospective, current students, alumni, faculty, as well as the broader public, about our legal research resources. According to Regli, creating a policy and workflow for the presentation of our research collections can help brand our library according to a research specialty. The Electronic Services Librarian maintains access to legal databases and updates content. The librarians and Archives Manager create Research Guides to assist patrons in navigating and finding resources in our library. One development we are working on is developing a Digital Asset Management system to curate our digitized archival collections featuring historical papers and items significant to the legal history of Hawai‘i and the broader Pacific. Our collections include Law School History, Faculty Publications, Samuel P. King Collection, as well as smaller collections such as the H-3 Litigation Archive and Pacific Islands Committee Collection.

**Assessing Existing Infrastructure**

One of the pitfalls that libraries may fall into during this rapidly changing technological era is reactive purchasing of technologies and software without understanding the broader strategic plan of the library. It is important to know your library’s existing technological and software infrastructures, such as pre-existing information management systems and technologies, to help identify what new technologies are necessary, or if you can work with current ones.

Eastwood mentioned creating a map of information creation and usage, and basing it on the organizational structure of the library to help understand the recordkeeping activity in context. This is a diagram of the different departments in our library and their functions.
**Existing servers:** We have shared server called “Manu,” based on a Microsoft XP system. The IT department installs on each departmental computer a short cut folder on the desktop for respective staff to access files directly in Manu. Currently, the folders are labeled and have names that relate to various departments, functions and personnel.

This causes the folder naming conventions on Manu to be unwieldy hierarchically and taxonomically. The folders should be organized according to the organizational structure of the library, such as according to the major departments and sub-departments, to address the redundant folders issue, folder naming conventions, and prevent accidental erasure of documents. In addition, there is no search function to find specific documents quickly. Lastly, we would like a server space that is VPN accessible for staff members who would like to work from home.

**Institutional Repositories.** Our library has access to institutional repositories located at other libraries on campus, and a local one located at the law library.

- **eVols:** The University offers repository space for institutional records. It is based on the DSpace platform, ready for use, and guarantees long-term digital preservation by the University. Currently we archive the School of Law’s catalogs. We send our digitized files and relevant metadata to the Desktop Network Services department at Hamilton Library. Given that it is
managed outside of the Law School Library, use of that repository is governed according to a specific policy that is not under our control.

- Scholar Space: Like eVols this is another DSpace platform. Currently we archive Faculty Publications in this repository.
- Library Server: Our IT Team has set up a Microsoft Server that could be a local repository space with guaranteed long-term preservation. We can use it to house digital archival collections that are not within the scope of the eVols and Scholarspace policies. Keeping this server means that we have to take more responsibility for the maintenance of the server and organization of the files. This requires the librarians and archive manager of this digital repository to collaborate and learn more with our IT team who have the expertise.

LibGuides is another proprietary platform purchased by our Library to post Research and Subject Guides. It has been used for now to post our online finding aids and inventories. We would like to curate our digital collections in a more dynamic way. The development of a digital archive site will require us to develop a second, locally controlled, site that will be managed by the Archives Manager and Electronic Services Librarian directly.

**Envisioning our Goals**

We identified two needs: 1) Document Management System to help us find business records for rapid knowledge exchange and human resource development among staff members. 2) Digital Asset Management system to curate digitized archival records that enable patrons to search, have direct access to digitized items, and promote the research specialization of our library.

- We want a Document Management system that allows us to organize our documents according to departments, and allow items to be found and accessed through keyword, record type, or departmental search. It would maintain security and appropriate access of confidential records, sensitive information based on rights and privileges determined in our organizational chart. It would follow the destruction of records according to a Records Management schedule. We want to have some of our business records, such as works in progress, to be made accessible via VPN, if we choose to work from home.
- We want a Digital Asset Management system that will curate our Pacific and Hawaii Law digital archival collections to feature unique materials consistent with the branding of our library specialty. For example, alongside the links to the legal research databases and research guides, we could present gallery of images featuring items from the digital archive.
Testing Software: During this stage, we consulted with the IT Administrative Department and Library Director to ensure the software can fit within the specifications of our IT system settings, and if the price would be within the library budget should we purchase a proprietary license.

We worked with our IT Administrator to set up server sandbox where we can install and test Open Source software. Through this process, we get an understanding of the usability of software, and to help us build our knowledge and experience on the process of moving forward.

To begin shopping around for Digital Asset Management systems, we consulted e-resources to help to compare various software and their features.

- Open Education Database: 
- Archives.Gov

For Document Management Systems, we perused

- Capterra
- G2 Crowd
  [https://www.g2crowd.com/](https://www.g2crowd.com/)

Through researching peer networks, we have identified other platforms such as Black Light, Omeka, and iBase.

After testing the capabilities of some of the candidates, we identified desired software functions.

- **Digital Asset Management Systems**
  We experimented with Omeka in our sandbox because it is Open Source. Despite its basic usability, we learned that we would like more granular levels of searching at the item level, not just at the metadata level. We learned the need to download plug-ins to allow item level searching and must collaborate with our IT Administrators to install other plug-ins as necessary.

  We also tried to download Black Light in our sandbox because of the item level searching that is already built in to the software, as well as other zoom in
features that allows closer look at documents. However, we came across some limits of our IT system to support its technical specifications.

- **Business Records**
  We learned from our IT Administrator that they can set up a server to provide VPN access to records because it is free through the University. The librarians would need to develop a policy on which folders should be made accessible off campus via VPN, ensuring that we stay within the bounds of FERPA, and other federal privacy and copyright laws.

  We would like a Document Management System for the business records in our Manu server. They will need to be organized into a filing system that reflects our IG policy and departmental functions, then further classified and tagged within the system. Two examples of Document Management Systems we have identified is Microsoft SharePoint and eFileCabinet. Sharepoint is the most likely candidate because of its professional quality grade.

**Conclusion**
We are still in the process of finalizing the software that will be used for our digital archive and electronic business records needs. But through identifying our assets, assessing existing infrastructure, envisioning our goals, and testing software we have narrowed down the function and purpose of our information systems and identified what software could meet our new operational goals. We clarified that we would like a digital asset management system to digitally archive our featured research collections for public patron access and this system should be searchable at the item level. We would like a document management system for internal electronic business recordkeeping, with ease of searching, and VPN access to various types of business records. Through understanding our current infrastructural landscape and support, we can clarify our priorities and move forward.

**End Notes**

4 See Regli 2010


See National Archives 2015.